

REMARKS

Claims 1-8 were previously pending and stand rejected in the Final Office Action mailed October 14, 2009. By this Amendment, Applicants have amended claim 1 to more clearly point out and distinctly claim what Applicants consider the invention. Claims 2-8 have been cancelled without prejudice. Claim 9 has been added. Support for the amendment to claim 1 can be found throughout the as-filed specification, for example, at paragraphs [0006] and [0033]. Support for claim 9 can be found in the original claim 3 as well as the as-filed specification at page 5, lines 18 to 19.

Accordingly, no new matter has been added. Applicants submit that the amendments put the claims in condition for allowance and do not require further searches. Applicants respectfully request reconsideration and allowance of the claims in view of the foregoing amendments and the following remarks.

Rejections under 35 U.S.C. § 102(b)

Claims 1 and 3 have been rejected under section 102(b) as being anticipated by Sunagawa et al. ("Sunagawa") for reasons previously made in the Office Action dated November 2, 2005. Claims 4-5 were rejected as being derived from claim 1 and therefore also anticipated by Sunagawa. Examiner asserted that claims 6-8 are directed to an invention that is independent or distinct from the invention originally claimed. In order to advance prosecution, Applicants have cancelled claims 2-8, thereby rendering the rejections to these claims moot. Applicants submit that the pending claims are not anticipated by Sunagawa.

In making a section 102(b) rejection, it must be shown that the prior art reference discloses, either expressly or inherently, each and every element of the claim in issue. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the...claim" See MPEP § 2131.

According to the Examiner, Sunagawa generally discloses a lithium secondary battery using the active material for a positive electrode which is expressed by the general formula $\text{Li}_x(\text{Ni}_{1-y}\text{Co}_y)_{1-z}\text{M}_z\text{O}_2$, where $0.98 \leq x \leq 1.10$, $0.05 \leq y \leq 0.4$, $0.01 \leq z \leq 0.2$, M is chosen from at least one element selected from a group of Al, Zn, Ti, and Mg, and the average size of the spherical secondary particles is 3.0 to 20.0 μm . According to the Examiner, Sunagawa also discloses an active material specific surface area ranging between 0.15 to 2.0 m^2/g .

Sunagawa, however, fails to disclose all claim limitations in the amended claim 1. For instance, Sunagawa fails to disclose that, "the difference between the specific surface area of the active material before and after a washing process, the washing process being performed for assessing characteristics of the secondary particles as an index, is 1.07 m^2/g or less." See claim 1, as amended.

The difference of surface area before and after the washing process is not inherent either. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ 2d 1461 (Bd. Pat. App. & Inter. 1990).

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical

processes, a prima facie case of either anticipation or obviousness has been established. See *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977). However, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. See *Id.* at 1255. Applicants hereby submit data showing that Sunagawa's active materials do not necessarily possess the same characteristics of the present invention and are quite different from the active materials obtained by the present invention. See attached Declaration.

Following the disclosure provided in Sunagawa, Applicants obtained four separate preparations of active material (A11, A12, A16, A21, as described in Declaration) by mixing lithium hydroxide, nickel hydroxide, cobalt hydroxide, and an M material (either Mg, Al, Ti, or Zn) in a mortar in an atomic ratio of Li: Ni: Co: M of 1.0: 0.6: 0.3: 0.1, baking the resultant mixture in an atmosphere of oxygen at a temperature of 750° C for 20 hours, and crushing the obtained composite oxides by using a jet mill, thereby preparing a composite oxide powder. For the obtained active materials, the specific surface area was measured before and after the washing process. The present invention discloses a difference in specific surface area of 1.07 m²/g or less. In contrast, for samples A11, A12, A16, and A21, the differences in the specific surface area are 1.20 m²/g, 1.35 m²/g, 1.34 m²/g, and 1.25 m²/g, respectively, all higher than 1.07 m²/g. Applicants also measured the Li occupancy rate for these four preparations. The present invention discloses a Li occupancy rate of 98% or greater. In contrast, the active materials disclosed by Sunagawa have a Li occupancy rate of less than 98% (96.2%, 96.6%, 96.4%, and 97.0% for samples A11, A12, A16, and A21, respectively).

As clearly demonstrated by Applicants, active materials disclosed by Sunagawa do not possess the same properties as the present invention and are distinct from the active materials obtained by the present invention. Therefore, the experimental results rebut any prima facie case of anticipation.

Accordingly, claim 1 is allowable over Sunagawa. Claim 9 has all claim limitations of claim 1. Therefore, it is patentable over Sunagawa for at least the reasons that claim 1 is patentable. Applicants respectfully request the allowance of claims 1 and 9.

Conclusion

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: March 15, 2010

By: /David W. Hill/
David W. Hill
Reg. No. 28,220